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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/732,200	12/07/2000	Volker Rasche	PHD 99,179	9483

7590

03/06/2002

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EXAMINER

KAO, CHIH CHENG G

ART UNIT

PAPER NUMBER

2882

DATE MAILED: 03/06/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/732,200

Applicant(s)

RASCHE ET AL.

Examiner

Chih-Cheng Glen Kao

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-- Th MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 07 February 2002 is: a) ☒ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ 6) ☐ Other: ____

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

1. Claims 1-5 and 7 are rejected under 35 U.S.C. 102(e) as being anticipated by Rattner (US Patent 6,213,638). Rattner discloses an x-ray device with a source (Fig. 1, #2) and detector (Fig. 1, #3) mounted on a common holding device (Fig. 1, #1), connected to a supporting device (Fig. 1, #5) composed of a plurality of hinged, serially interconnected supporting members (Fig. 1, #7) as a robot arm to position completely (Fig. 1, "b", "α", and "β"). The individual supporting members can be individually controlled (Fig. 1, "g" represented by individual motors), while the holding device in the form of a C-arm (Fig. 1) is connected to the holding device by way of a hinge (Fig. 1, #4 and "β").

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rattner as applied to claim 1 above, and further in view of Holmström (US Patent 3,784,837). Rattner discloses a device as recited above. However, Rattner does not disclose a holding device composed of at least two holding members for the source and detector.

Holmström discloses a holding device composed of at least two holding members for the source and detector (Fig. 1).

It would have been obvious, to one of ordinary skill in the art at the time the invention was made, to prepare the holding device of Holmström with the x-ray device of Rattner because one would be motivated to move the x-ray source as freely as possible around the patient as disclosed by Holmström.

3. Claims 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rattner as applied to claim 1 above, and further in view of Travanty et al. (US Patent 4,987,583) and Rattner (US Patent 5,285,772). Rattner (US Patent 6,213,638) discloses a device as recited above. However, Rattner does not disclose an ultrasonic or mechanical contact sensor to monitor distance between the examined object and the source or detector.

Travanty et al. discloses a mechanical contact sensor to monitor distance between the examined object and the source or detector (abstract, lines 2-4 and col. 3, lines 50-56). Rattner (US Patent 5,285,772) discloses ultrasonic sensors and detectors for a C-arm device (col. 2, lines 40 and 44-46).

It would have been obvious, to one of ordinary skill in the art at the time the invention was made, to prepare the mechanical contact sensors of Travanty et al. and the ultrasonic sensors and detectors of Rattner (US Patent 5,285,772) with the x-ray device of Rattner (US Patent 6,213,638) because one would be motivated to protect the examined object from being hit by the source or detector as shown by Travanty et al. and Rattner.

Response to Arguments

4. Objections to the Specification and Drawings made in paragraphs 1-3 of the Office Action filed August 15, 2001, have been withdrawn in light of the Amendment and Drawing Corrections filed February 7, 2002.

5. The rejection of claims 1-7 under 35 U.S.C. 103(a) as being unpatentable over the applicant's admission of prior art in view of Kresse (US Patent 4,894,855) made in paragraph 6 of the Office Action filed August 15, 2001, has been withdrawn.

6. Applicant's arguments filed February 7, 2002, with regards to claims 1-5 and 7 rejected under 35 U.S.C. 102(e) as being anticipated by Rattner (US Patent 6,213,638), claim 6 rejected under 35 U.S.C. 103(a) as being unpatentable over Rattner as applied to claim 1 above, and further in view of Holmström (US Patent 3,784,837), and claims 8-10 rejected under 35 U.S.C. 103(a) as being unpatentable over Rattner as applied to claim 1 above, and further in view of Travanty et al. (US Patent 4,987,583) and Rattner (US Patent 5,285,772) have been fully considered but they are not persuasive.

Regarding Rattner (US Patent 6,213,638), the Applicant's arguments more particularly refers to col. 6, lines 8-9, stating "that Rattner's element 5 comprising an image intensifier arranged under the patient support table." The Examiner respectfully disagrees. The noted section by the Applicant discusses the second embodiment of the inventive medical device in Figure 2. There is no mention of an "image intensifier arranged under the patient support table 3" in the specification or Figure 2.

Regarding Rattner in view of Holmström, claim 6 includes a holding device including at least two holding members. Holmström has at least two holding members. Figure 9, #9 and 11, can be considered holding members. Secondly, the casing for Figure 9, #1 and 2, can be considered holding members in that they hold the x-ray source and detector. Further, although Rattner does not specifically disclose "at least two holding members", Rattner can be considered to also include holding members by the broadest reasonable interpretation of the claim by the attachment points (Figure 1, #1, 2, and 3). Thus, there is a suggestion to combine the references.

Regarding Rattner in view of Travanty et al. and Rattner (US Patent 5,285,772), the suggestion to combine the references is given in the motivation to protect the examined object in a collision with the source or detector as implied from Travanty et al. (abstract, col. 2, lines 3-24) or other reasons such as distance identification as shown by Rattner (US Patent 5,285,772) (col. 2, lines 44-46). Lastly, Rattner (US Patent 6,213,638) may not specifically disclose "provided means for monitoring the distance between an object to be examined and moving parts of the x0ray device, notably the x-ray source and the x-ray detector" "...wherein the means for monitoring the distance are provided with ultrasound sensor and ultrasound detectors." However, the specification in Rattner (col. 2, lines 28-33) regarding ultrasound waves for a

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transmitter and receiver wherein transmitters can be arranged at the device component provides further suggestion for combining the references. Lastly, recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chih-Cheng Glen Kao whose telephone number is (703) 605-5298. The examiner can normally be reached on M - Th (8 am to 5 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Kim can be reached on (703) 305-3492. The fax phone numbers for the

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organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



gk

February 27, 2002



ROBERT H. KIM
SUPERVISORY PATENT EXAMINER
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